

ABSTRACT OF THE DISCLOSURE

[43] The invention relates to the cleaning of contaminated accelerating or guiding electrodes of ion sources used for ion generation by desorption. A cleaning plate is used that has an outer contour similar to that of a standard sample support plate, and may be equipped with cleaning scrubbers that can be moved out when
5 necessary to contact the electrodes. The scrubbers may include soft covers, and can carry out the cleaning by dry rubbing or with the help of high-boiling solvents for the matrix substances. The moving out of the cleaning scrubbers can be controlled by external light pulses from a laser or video camera spot light. Alternatively, the cleaning
10 plate may be equipped with spray nozzles connected to a reservoir of cleaning fluid which is sprayed onto the electrodes, and the evacuation of the ventilated ion source chamber may be used to initiate the spraying.